

Serial No. 10/642,584

Amendment Dated: January 4, 2006

Reply to Office Action Mailed: August 24, 2006

Attorney Docket No. 056208.542669US

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (CURRENTLY AMENDED) A multi-phase alternating-current rotational electric machine comprising:

a housing,

a rotor shaft rotatably installed in the housing,

a magnetized rotor fixed to the rotor shaft,

a stator which is arranged such that the windings of the stator coil are wound around the stator core fixed to the housing,

multiple semiconductor switching devices, installed in the housing, which adjust currents of the stator, and

heat sinks fixed to the respective semiconductor switching devices so that heat can be conducted, wherein

the semiconductor switching devices are electrically insulated from the heat sinks, and the heat sinks are grounded to the housing as well as thermally completely separated in each phase into positive and negative U, V, and W phases.

2. (CURRENTLY AMENDED) A multi-phase alternating-current rotational electric machine comprising:

a housing,

a rotor shaft rotatably installed in the housing,

a magnetized rotor fixed to the rotor shaft,

a stator which is arranged such that the windings of the stator coil

are wound around the stator core fixed to the housing,

multiple semiconductor switching devices, installed in the housing,
which adjust currents of the stator, and

heat sinks fixed to the respective semiconductor switching devices
so that heat can be conducted, wherein

the semiconductor switching devices are electrically insulated from
the heat sinks, the heat sinks are grounded to the housing as well as completely
separated into positive and negative U, V and W phases, and the temperature of
the multiple semiconductor switching devices are substantially determined in
each phase.

3. (ORIGINAL) A multi-phase alternating-current rotational
electric machine according to Claim 1, wherein

multiple fins are arranged on the base surface of said heat sink and
the substantially full flow of the air entering into said housing passes through
the multiple fins.

4. (ORIGINAL) A multi-phase alternating-current rotational
electric machine according to Claim 1, wherein

multiple fins are arranged on the base surface of said heat sink and
a cover, which has an opening almost identical to the projection of the heat sink
in the direction of said rotor shaft, is provided.

5. (CANCELED)

6. (CURRENTLY AMENDED) A multi-phase alternating-current
rotational electric machine according to Claim 5 4, wherein

said multiple fins of said heat sink are concentrically arranged with
said rotor shaft as the center.

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7. (CURRENTLY AMENDED) A multi-phase alternating-current rotational electric machine according to Claim 1 3, wherein

 said multiple fins located on the base surface of said heat sink are columnar and the multiple columnar fins are arranged on the base surface in a lattice-like configuration.

8. (CURRENTLY AMENDED) A multi-phase alternating-current rotational electric machine according to Claim 1 3, wherein

 said multiple fins located on the base surface of said heat sink are columnar and the multiple columnar fins are arranged on the base surface in a staggered configuration.

9. (CANCELED)

10. (CANCELED)